

SARGO PRODUCTS • NEW HOPE, MINNESOTA
 REORDER BY PART NUMBER 6532
 PREVIOUS EDITIONS OF THIS DRAWING ARE OBSOLETE
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SECTION B-B

PLAN

SECTION A-A

NOTE: LIMESTONE ROCK SHALL NOT BE USED AS RIP-RAP.

NOTE: RIP-RAP SHALL BE INSTALLED TO PROVIDE EASY REMOVAL OF TRASH GUARD.

DIA. OF ROUND PIPE (IN.)	L (FT.)	CLASS IV $d_{50}=12"$	
		24" DEPTH RIPRAP (CU. YDS.)	12" DEPTH GRANULAR FILTER (CU. YDS.)
12	8	5.5	2.8
15	8	5.8	2.9
18	10	7.8	3.9
21	10	8.4	4.2
24	12	11.0	5.5
27	12	11.6	5.8
30	14	14.5	7.3
36	16	18.3	9.2
42	18	21.7	10.9
48	20	25.8	12.9

PLAN

ELEVATION

3/4" STEEL BARS - TRANSVERSE AND LONGITUDINAL. WELD EACH INTERSECTION.

EQUIDISTANT

FLARED END SECTION

STORM SEWER

POSITIONING LUG IS NOT REQUIRED

SOLID LID WITH TWO CONCEALED PICK HOLES

25 3/4"

7/8"

24 1/8"

7"

26 1/2"

35 1/2"

CASTING SHALL BE NEENAH R-1733 OR EQUAL

INSTALL CAP SCREWS WITH BOLT HEADS EXPOSED

36 1/2"

35 1/4"

1 7/8"

5"

6"

17 3/4"

3 1/8"

33"

36"

43"

15 1/2"

24"

31"

CURB BOX ADJUSTABLE 6" TO 9"

CASTINGS SHALL BE NEENAH R-3067-V OR EQUAL

STANDARD CASTING

CONCRETE SLAB - CRETEX TYPE II OR EQUAL

GROUTED IN PLACE 2" CONCRETE ADJUSTING RINGS - MINIMUM 2 RINGS MAXIMUM 6 RINGS

WALLS TO BE CONSTRUCTED OF PRECAST SECTIONS OR CONC. SEWER BLOCK. SEWER BLOCK SHALL BE PLASTERED ON INTERIOR AND EXTERIOR.

CONCRETE SLAB - CRETEX TYPE II OR EQUAL

OFFSET STEPS AROUND PIPE. MAXIMUM DISTANCE FROM FLOOR TO BOTTOM STEP = 16"

MANHOLE FLOOR SHALL BE SLOPED TO PROVIDE SMOOTH FLOW FROM INLET TO OUTLET.

NOTE: THIS TYPE MANHOLE SHALL BE USED WHEN SPECIFIED OR WHEN THE MANHOLE DEPTH IS LESS THAN EIGHT FEET.

RIP-RAP INSTALLATION

PIPE SIZE	THREAD DIAMETER
12	
15	5/8"
18	ROLLED THREADS (SEE NOTE 4)
21	
24	
27	
30	
33	
36	3/4"
42	CUT OR ROLLED
48	
54	
60	
66	
72	
78	
84	
90	1"
96	CUT OR ROLLED
102	
108	
120	
132	

CANOPY TIE

U BOLT TIE

EYE BOLT TIE

NOTE:

- HOLES SHALL BE CAST-IN OR DRILLED 16" FROM OUTSIDE EDGE OF JOINT.
- NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF PIPE WITH 27" DIAMETER OR LESS.
- TIES ARE NOT REQUIRED FOR BELL PIPE 24" AND SMALLER. ON OTHER SIZES, TIE MAY BE INSERTED FROM INSIDE.
- CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
- PIPE SIZES LISTED ARE INSIDE DIAMETER OF ROUND PIPE OR EQUIVALENT DIAMETER OF PIPE ARCH.

PLACEMENT OF HOLES

TRASH GUARD

CASTING

GROUTED IN PLACE 2" CONCRETE ADJUSTING RINGS - MINIMUM 2 RINGS MAXIMUM 6 RINGS

WALLS TO BE CONSTRUCTED OF PRECAST SECTIONS OR CONCRETE SEWER BLOCK. BLOCK SHALL BE PLASTERED ON INTERIOR AND EXTERIOR.

4'-0" MAXIMUM

24" X 36"

2"

6" CONCRETE BASE POURED IN PLACE OR 4" MINIMUM PRECAST BASE.

NOTE: REINFORCING SHALL CONSIST OF A SINGLE LINE OF STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.17 SQ. IN. PER FOOT OF HEIGHT.

STANDARD MANHOLE

GROUTED IN PLACE - 2" CONCRETE ADJUSTING RINGS - MINIMUM 2 RINGS MAXIMUM 6 RINGS

STANDARD CASTING

SECTIONS PER SPECIFICATIONS

SECTION A-A

PRECAST ECCENTRIC CONE

1' BARREL SECTION BELOW CONE

PRECAST CONCRETE

THIS AREA MAY BE PRECAST OR BLOCK

MANHOLE FLOOR SHALL BE SLOPED TO PROVIDE SMOOTH FLOW FROM INLET TO OUTLET.

CONCRETE SLAB - CRETEX TYPE II OR EQUAL

4'-0"

4'-0"

VARIABLE

2"

12" MAX.

16"

16" MAX.

3"

5'-4"

6"

CATCH BASIN SEDIMENT BARRIER

RUNOFF WATER WITH SEDIMENT

18" MINIMUM

CLEAR ROCK (3/4" TO 1 1/2")

WIRE MESH (1/2" BY 1/2")

FILTERED WATER

SEDIMENT

SHALLOW CATCH BASIN

CASTING

GROUTED IN PLACE 2" CONCRETE ADJUSTING RINGS - MINIMUM 2 RINGS MAXIMUM 6 RINGS

WALLS TO BE CONSTRUCTED OF PRECAST SECTIONS OR CONCRETE SEWER BLOCK. BLOCK SHALL BE PLASTERED ON INTERIOR AND EXTERIOR.

6" CONCRETE BASE POURED IN PLACE OR 4" MINIMUM PRECAST BASE.

NOTE: REINFORCING SHALL CONSIST OF A SINGLE LINE OF STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.17 SQ. IN. PER FOOT OF HEIGHT.

DESIGNED BY: DESIGNED BY DRAWN BY: RKM
 APPROVED BY: APPROVED BY JOB NUMBER 811388J
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE _____ DATE _____
 PRINTED NAME JOHN M. ANDERSON LIC. NO. 25889

NO.	DATE	BY	REVISION DESCRIPTION

1326 ENERGY PARK DRIVE
 ST. PAUL, MINNESOTA 55108
 (651) 644-4389

Howard R. Green Company

THE WOODS OF HILLSIDE IV
 CITY OF ELK RIVER

STORM SEWER DETAILS

SHEET NO.
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